

Inventor : Shalaby et al.
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COMPLETE LISTING OF ALL CLAIMS, WITH MARKINGS AND STATUS IDENTIFIERS
(Currently amended claims showing deletions ~~by strikethrough~~ and additions by underlining)

1 (canceled)

2 (withdrawn): A conjugate comprising an absorbable polyester according to claim 1 and a peptide and/or bioactive agent, where the peptide and bioactive agent have at least one interactive amino group, wherein the monophosphate functionality forms a linkage with the amino group.

3 (withdrawn): A conjugate according to claim 2 wherein the peptide is selected from the group consisting of p-Glu-His-Trp-Ser-Tyr-D-Trp-Leu-Arg-Pro-Gly-NH₂, H-β-D-Nal-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH₂ where the two Cys are bonded by a disulfide bond, N-hydroxyethylpiperazinyl-acetyl-D-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH₂ where the two Cys are bonded by a disulfide bond and N-hydroxyethylpiperazinyl-ethylsulfonyl-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH₂ where the two Cys are bonded by a disulfide bond, or a pharmaceutically acceptable salt thereof.

4 (withdrawn): A solid absorbable microparticle which comprises the absorbable polyester according to claim 1 and having a surface, wherein more than one percent of the monophosphate functionality resides on the surface of the absorbable microparticle.

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5 (withdrawn): A conjugate comprising the absorbable microparticle according to claim 4 and a peptide and/or bioactive agent, where the peptide and bioactive agent have at least one interactive amino group, wherein the monophosphate functionality on the surface of the absorbable microparticle forms a linkage with the amino group.

6 (withdrawn): A conjugate according to claim 5 wherein the peptide is selected from the group consisting of ρ -Glu-His-Trp-Ser-Tyr-D-Trp-Leu-Arg-Pro-Gly-NH₂, H- β -D-Nal-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH₂, where the two Cys are bonded by a disulfide bond, N-hydroxyethylpiperazinyl-acetyl-D-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH₂, where the two Cys are bonded by a disulfide bond and N-hydroxyethylpiperazinyl-ethylsulfonyl-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH₂, where the two Cys are bonded by a disulfide bond, or a pharmaceutically acceptable salt thereof.

7 (withdrawn): An acylated or alkylated absorbable polysaccharide, having one or more terminal monophosphate functionality per molecule.

8 (withdrawn): An acylated or alkylated absorbable polysaccharide according to claim 7 wherein said absorbable polysaccharide is an acylated gamma-cyclodextrin.

9 (withdrawn): A conjugate comprising the alkylated or acylated absorbable polysaccharide according to

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claim 7 and a peptide and/or bioactive agent, where the peptide and bioactive agent have at least one interactive amino group, wherein the monophosphate functionality forms a linkage with the amino group.

10 (withdrawn): A conjugate according to claim 9 wherein the peptide is selected from the group consisting of ρ -Glu-His-Trp-Ser-Tyr-D-Trp-Leu-Arg-Pro-Gly-NH₂, H- β -D-Nal-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH₂, where the two Cys are bonded by a disulfide bond, N-hydroxyethylpiperazinyl-acetyl-D-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH₂, where the two Cys are bonded by a disulfide bond and N-hydroxyethylpiperazinyl-ethylsulfonyl-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH₂, where the two Cys are bonded by a disulfide bond, or a pharmaceutically acceptable salt thereof.

11. (currently amended): An absorbable polyester ~~according to claim 1, with at least one monophosphate~~ functionality of the formula -O-P(O)(OH)₂ per absorbable polyester chain covalently-linked by a single phosphate bond thereto wherein the polyester chain comprises one or more monomers selected from the group consisting of L-lactic acid, D-lactic acid, DL-lactic acid, malic acid, citric acid, tartaric acid, ϵ -caproic acid, alkylene oxalate, cycloalkylene oxalate, alkylene succinate, β -

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hydroxybutyrate, glycolide, glycolic acid, L-lactide, D-lactide, DL-lactide, meso-lactide, trimethylene carbonate, p-dioxanone, 1,5-dioxepan-2-one and 1,4-dioxepan-2-one and any optically active isomers, racemates, or copolymers thereof and wherein said covalently-linked monophosphate functionality has at least one free acidic -OH group.

12 (original): An absorbable polyester according to claim 11 further comprising one or more polyethylene glycol segments covalently linked to said polyester.

13 (withdrawn): A conjugate comprising an absorbable polyester according to claim 12 and a peptide and/or bioactive agent, where the peptide and bioactive agent have at least one interactive amino group, wherein the monophosphate functionality forms a linkage with the amino group.

14 (withdrawn): A conjugate according to claim 13 wherein the peptide is selected from the group consisting of •-Glu-His-Trp-Ser-Tyr-D-Trp-Leu-Arg-Pro-Gly-NH₂, H-•-D-Nal-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH₂ where the two Cys are bonded by a disulfide bond, N-hydroxyethylpiperazinyl-acetyl-D-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH₂ where the two Cys are bonded by a disulfide bond and N-hydroxyethylpiperazinyl-ethylsulfonyl-Phe-Cys-Tyr-D-Trp-Lys-

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Abu-Cys-Thr-NH₂, where the two Cys are bonded by a disulfide bond, or a pharmaceutically acceptable salt thereof.

15 (withdrawn): A pharmaceutical composition comprising a conjugate according to claim 2 and a pharmaceutically acceptable carrier.

16 (withdrawn): A pharmaceutical composition comprising a conjugate according to claim 5 and a pharmaceutically acceptable carrier.

17 (withdrawn): A pharmaceutical composition comprising a conjugate according to claim 9 and a pharmaceutically acceptable carrier.

18 (withdrawn): A pharmaceutical composition comprising a conjugate according to claim 13 and a pharmaceutically acceptable carrier.

19 (previously presented): An absorbable polyester according to claim 11 for use as an acidic excipient of a cyanoacrylate composition.

20 (withdrawn): A method for making a low melting phosphorylated-hydroxyl-bearing polyester having 1% to 60% crystallinity, which comprises reacting hydroxyl-bearing polyester with an excess of pyrophosphoric acid to yield the phosphorylated-hydroxyl-bearing polyester.

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21 (withdrawn): A method for making a phosphorylated-acylated cyclodextrin, which comprises reacting an acylated cyclodextrin with an excess of pyrophosphoric acid to yield the phosphorylated-acylated cyclodextrin.

22 (withdrawn): A method for making a phosphorylated-alkylated cyclodextrin, which comprises reacting an alkylated cyclodextrin with an excess of pyrophosphoric acid to yield the phosphorylated-alkylated cyclodextrin.

23 (withdrawn): A method for making phosphorylated microparticles, which comprises reacting a hydroxyl-bearing microparticle with excess pyrophosphoric acid to yield the phosphorylated microparticles.

24 (withdrawn): A method for making an acylated-phosphorylated polysaccharide, which comprises reacting a polysaccharide concurrently with a heated mixture of pyrophosphoric acid and an acylating agent to yield the acylated-phosphorylated polysaccharide.

25 (withdrawn): A method according to claim 24, wherein the polysaccharide is cyclodextrin and the acylating agent is propionic anhydride or acetic anhydride.

26 (withdrawn): A phosphorylated-grafted-acylated cyclodextrin having one or more monophosphate functionality.

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27 (withdrawn): A method of preparing phosphorylated-grafted-acylated cyclodextrin, which comprises heating a monomer with an acylated cyclodextrin in the presence of a catalytic amount of stannous octoate for about 2-24 hours at about 100°C to 200°C to form a reaction mixture comprising grafted-acylated cyclodextrin; dissolving the reaction mixture in acetone to make an acetone solution; precipitating the acetone solution in ice water to form a precipitate; isolating the precipitate; drying the precipitate to give a dried precipitate; and reacting the dried precipitate with an excess of pyrophosphoric acid to yield the phosphorylated-grafted-acylated cyclodextrin.

28 (withdrawn): A conjugate comprising phosphorylated-grafted-acylated cyclodextrin and a peptide and/or bioactive agent, where the peptide and bioactive agent have at least one interactive amino group and the monophosphate group forms a linkage with the amino group.